THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **: Atsuhiro HIRAMA**

Filed: **: Concurrently herewith**

For: **: RADIO COMMUNICATION SYSTEM,....**

Serial No. **: Concurrently herewith**

Assistant Commissioner of Patents
Washington, D.C. 20231

February 8, 2002

PRELIMINARY AMENDMENT

S I R:

Prior to the issuance of an Office Action, please amend the claims as follows:

IN THE SPECIFICATION:
Please amend the specification as follows:

At page 20, line 18 please change the paragraph to read as follows:

The terminal station 2-1 to 2-n and the base station 3 are constructed, for example, as shown in FIG. 2. That is, the base station 3 has an essential part composed of a radio antenna 31, a radio section (RF/IF section) 32, a baseband section 33 and a control section 34, while each of the mobile stations 2-i (i = 1 to n) is composed of a radio antenna 21, a radio section (RF/IF section) 22, a baseband section 23 and a control section 24.

At page 22, line 10, please change the paragraph to read as follows:

The modulating section 33-3 is for modulating the output [transmission signal after spread (transmission multiplexed signal)] of the coder 33-2 according to QPSK (Quadrature Phase Shift Keying), with the transmission multiplexed signal after the modulation being

upconverted into an IF signal → an RF signal in the radio section 32 and then transmitted through the radio antenna 31 to the mobile station 2-i.

At page 27 , line 10 please change the paragraph to read as follows:

The A/D converter 22-11 is for converting the RSSI value (output voltage value) detected by the RSSI detecting section 22-10 into a digital value, with this digital value being outputted to a data demodulating section 23-2 (which will be mentioned later) of the baseband section 23.

At page 30, line 21 please change the paragraph to read as follows:

On the other hand, in the mobile station 2-i, when receiving the broadcasting channel data from the base station 3 through the broadcasting channel (it is obtained by performing the inverse spread using a code previously allocated for the broadcasting channel), the RSSI correction quantity extracting section 232a of the data demodulating section 23-2 extracts an RSSI correction quantity from the broadcasting channel data and supplies it to the RSSI correcting section 23-4.

At page 31, line 14 please change the paragraph to read as follows:

As described above, with the CDMA communication system 1 according to this embodiment, an RSSI correction quantity is broadcasted from the base station 3 to the mobile station 2-i, and in the mobile station 2-i, the RSSI detected using the logarithmic amplifier 100 is corrected by the correction quantity to compensate for (correct) an error in the RSSI detection occurring according to a difference in multiplex number stemming from the input-output

characteristic with input waveform dependency the logarithmic amplifier 100 retains, which considerably improves the RSSI detection accuracy in the mobile stations 2-i.

At page 31, line 25 please change the paragraph to read as follows:

Accordingly, in particular, in the case of the CDMA communication system 1, in the aforesaid "open loop processing", since the transmission power of the mobile station 2-i and the base station 3 are determined to be a more appropriate value, it is possible to achieve the power-saving, the suppression of drop of the communication performance cased by the "far-and –near problem", the increase in number of mobile stations to be accommodated from the improvement of frequency utilization efficiency, and others.

At page 36, line 7 please change the paragraph to read as follows:

Thus, in the base station 3, the number of multiplexes detected by the multiplex number detecting section 33-4 (or 33-4A, 33-4B) is stored intact as an RSSI compensation parameter in the broadcasting channel data by the coder 33-2, and broadcasted through a broadcasting channel to the mobile station 2-i.

At page 36, line 13 please change the paragraph to read as follows:

Furthermore, in the mobile station 2-i, the number of multiplexes is extracted by the multiplex number extracting section 232c of the data demodulating section 23-2 and is used as an address so that an RSSI correction quantity corresponding to the number of multiplexes is read out from the corresponding address area. That is, the multiplex number extracting section 232c also functions as a second memory control section for reading out the correction quantity corresponding to the extracted multiplex number from the memory 23-6.

In the claims:

Please amend the claims as follows:

11. (Amended) A base station for use in a radio communication system according to claim 8, characterized in that a plurality of transmission data generating sections (331-i) are provided to generate transmission data to be multiplexed as said transmission multiplexed signal, and

said multiplex number detecting section (33-4) includes: an enable signal counting section (337) for counting the number of enable signals for said transmission data generating sections (331-i) to detect said information on the number of multiplexes.

REMARKS

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Favorable consideration is respectfully requested.

Respectfully submitted,

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575 Madison Avenue
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Docket No.: FUJS 19.382
Any fee due with this paper, may be charged
On Deposit Acct. No. 50-1290.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please amend the specification as follows:

At page 20, line 18 please change the paragraph to read as follows:

The terminal station ~~2~~ 2-1 to 2-n and the base station 3 are constructed, for example, as shown in FIG. 2. That is, the base station 3 has an essential part composed of a radio antenna 31, a radio section (RF/IF section) 32, a baseband section 33 and a control section 34, while each of the mobile stations 2-i (i = 1 to n) is composed of a radio antenna 21, a radio section (RF/IF section) 22, a baseband section 23 and a control section 24.

At page 22, line 10, please change the paragraph to read as follows:

The modulating section 33-3 is for modulating the output [transmission signal after spread (transmission multiplexed signal)] of the coder 33-~~3~~2 according to QPSK (Quadrature Phase Shift Keying), with the transmission multiplexed signal after the modulation being upconverted into an IF signal → an RF signal in the radio section 32 and then transmitted through the radio antenna 31 to the mobile station 2-i.

At page 27 , line 10 please change the paragraph to read as follows:

The A/D converter 22-11 is for converting the RSSI value (output voltage value) detected by the RSSI detecting section 22-10 into a digital value, with this digital value being outputted to a data demodulating section 23-2 (which will be mentioned later) of the baseband section 23.

At page 30, line 21 please change the paragraph to read as follows:

On the other hand, in the mobile station ~~3~~2-i, when receiving the broadcasting channel data from the base station 3 through the broadcasting channel (it is obtained by performing the inverse spread using a code previously allocated for the broadcasting channel), the RSSI correction quantity extracting section 232a of the data demodulating section 23-2 extracts an RSSI correction quantity from the broadcasting channel data and supplies it to the RSSI correcting section 23-4.

At page 31, line 14 please change the paragraph to read as follows:

As described above, with the CDMA communication system 1 according to this embodiment, an RSSI correction quantity is broadcasted from the base station 3 to the mobile station ~~2~~ 2-i, and in the mobile station ~~2~~2-i, the RSSI detected using the logarithmic amplifier 100 is corrected by the correction quantity to compensate for (correct) an error in the RSSI detection occurring according to a difference in multiplex number stemming from the input-output characteristic with input waveform dependency the logarithmic amplifier 100 retains, which considerably improves the RSSI detection accuracy in the mobile stations 2-i.

At page 31, line 25 please change the paragraph to read as follows:

Accordingly, in particular, in the case of the CDMA communication system 1, in the aforesaid "open loop processing", since the transmission power of the mobile station 2-i and the base station 3~~-i~~ are determined to be a more appropriate value, it is possible to achieve the power-

saving, the suppression of drop of the communication performance cased by the "far-and –near problem", the increase in number of mobile stations to be accommodated from the improvement of frequency utilization efficiency, and others.

At page 36, line 7 please change the paragraph to read as follows:

Thus, in the base station 3, the number of multiplexes detected by the multiplex number detecting section 33-4 (or 33-4A, 33-4B) is stored intact as an RSSI compensation parameter in the broadcasting channel data by the coder 33-2, and broadcasted through a broadcasting channel to the mobile station ~~22~~-i.

At page 36, line 13 please change the paragraph to read as follows:

Furthermore, in the mobile station ~~22~~-i, the number of multiplexes is extracted by the multiplex number extracting section 232c of the data demodulating section 23-2 and is used as an address so that an RSSI correction quantity corresponding to the number of multiplexes is read out from the corresponding address area. That is, the multiplex number extracting section 232c also functions as a second memory control section for reading out the correction quantity corresponding to the extracted multiplex number from the memory 23-6.

In the claims:

Please amend the claims as follows:

11. (Amended) A base station for use in a radio communication system according to ~~any one of~~ claims 8 ~~to 10~~, characterized in that a plurality of transmission data generating sections (331-i) are provided to generate transmission data to be multiplexed as said transmission multiplexed signal, and said multiplex number detecting section (33-4) includes: an enable signal counting section (337) for counting the number

of enable signals for said transmission data generating sections (331-i) to detect said information on the number of multiplexes.